

PATENT ABSTRACTS OF JAPAN

(11)Publication number : **03-060251**

(43)Date of publication of application : **15.03.1991**

(51)Int.Cl.

H04L 27/18

H04B 7/26

(21)Application number : **01-193944**

(71)Applicant : **NIPPON TELEGR & TELEPH
CORP <NTT>**

(22)Date of filing : **28.07.1989**

(72)Inventor : **SAWAHASHI MAMORU
MUROTA KAZUAKI
HIRAIDE KENKICHI**

(54) **MODULATOR**

(57)Abstract:

PURPOSE: To effectively utilize a frequency by varying a modulation- demodulation system and a transmission signal bit rate having been fixed conventionally, and applying adaptive transmission with a control signal controlled depending on the state of the transmission line.

CONSTITUTION: The modulator is provided with a data input terminal 1-1, an RF signal output terminal 1-2, a control circuit 1-3, a serial/parallel conversion circuit 1-4, a channel designation device 1-5, a modulator section 1-6, an adder 1-7, a D/A converter 1-8 and an orthogonal modulator 1-9. When the signal propagation state is excellent in response to the change in the state of a transmission line for the signal attended with the change in the distance, multivalue modulation-demodulation with efficient frequency is used for the signal, or high bit rate transmission is applied by widening the signal transmission band, and when the propagation state near the surrounding of a zone is deteriorated, the modulation-demodulation system with excellent error rate characteristic is used or the signal is sent while making the signal transmission band narrow. Thus, the utilizing efficiency of the frequency is improved.

